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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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UNITED STATES BUOYAGE SYSTEM.

The United States Hydrographic Office has recently published some interesting information relative to the buoys used by the United States Light-house Board for marking channels, dangers, etc. In this report the Hydrographic office says:

The buoys used by the United States Light-house Board for marking channels, dangers, etc., are called nun, can, ice and spar buoys, and are of the first, second and third class, depending on their size. With the exception of the spar buoy, which is made of wood, they are constructed of sheet iron with water tight compartments so that an accidental puncture will not sink them.

In conformity with Section 4,678 of the Revised Statutes of the United States, the following order is observed in coloring and in numbering the buoys along the coasts, or in bays, harbors, sounds or channels, viz.:

1. In approaching the channel, etc., from seaward, red buoys, with even numbers, will be found on the starboard side of the channel, and must be left on the starboard hand in passing in.

2. In approaching the channel, etc., from seaward, black buoys, with odd numbers, will be found on the port side of the channel, and must be left on the port hand in passing in.

3. Buoys painted with red and black horizontal stripes will be found on obstructions, with channel ways on each side of them, and may be left on either hand in passing in.

4. Buoys painted white and black perpendicular stripes will be found in mid-channel, and must be placed close to to avoid danger.

All other distinguishing marks to buoys will be in addition to the foregoing, and may be employed to mark perpendicular spots.

Perches, with balls, cages, etc., will, when placed on buoys, be at turning points, the color and number indicating on which side they shall be passed.

Different channels in the same bay, sound, river or harbor, will be marked, as far as practicable, by different descriptions of buoys. Principal channels will be marked by nun buoys; secondary channels by can buoys, and minor channels by spar buoys. When there is but one channel, nun buoys, properly colored and numbered, are usually placed on the starboard side and can buoys on the port side of it.

Day beacons, stakes and spindles (except such as are on the sides of channels which will be colored like buoys) are constructed and distinguished with special reference to each locality and particularly in regard to the background upon which they are projected.

Wherever practicable the towers, beacons, buoys, spindles and all other aids to navigation are arranged in the buoy list of the Light-house Board in regular order as they are passed by vessels entering from sea.

ATLANTIC DERELICTS.

The subject of derelicts in the tracks of navigation has recently received considerable attention from the British Board of Trade and has for some time past commanded attention from our own Hydrographic office. The Hydrographic Department publishes weekly bulletins and monthly charts showing the position of these derelicts. In its latest pilot chart the Hydrographic office had the following to say regarding derelicts on the North Atlantic:

"During the month of November there has been no decrease in the number of derelicts in the North Atlantic, but nearly all of them were reported to the southward of the transatlantic steamship routes and most of them in the Gulf Stream region southeast of New York

LARGEST DRY DOCK IN AMERICA.

Work on the government dry dock, at Port Orchard, on the Pacific coast at Puget Sound is being rapidly prosecuted and from present indications the dock will be completed nearly a year ahead of contract time unless some obstacle unexpectedly turns up. About 490 feet of the dock proper is completed and the immense caisson forming the gates will be finished in about three weeks, several months ahead of time and quicker than one has ever been made before. Men are working night and day, there being three shifts of eight hours each. A Thomson-Houston dynamo, 2,000 candle-power, furnishing twenty lights, is used during the night. Pile-driving is completed on the main dock, and on the lower end they are cut off level and ready for capping. The dock will be 560 feet long, 70 feet wide at the bottom and 130 feet wide at the coping. It is 42 feet deep and the mean spring tide comes within 7 feet of the coping, giving 35 feet depth of water.

IMPROVING THE ERIE CANAL.

The New York State Superintendent of Public Works expects on December 20, to open bids for deepening the Erie canal for a mile and a quarter, in pursuance to the law passed by the last legislature, which made a preliminary appropriation of $100,000 to begin the work. The law does not state on what section of the canal the work should be commenced. The portion of the Erie canal on which the improvement will be started runs through Albany's lumber district. A number of lumber merchants waited upon the state engineer Friday, and asked that the proposed improvement be commenced on some other section of the canal, for the reason that if it was begun at Albany it would necessitate a like improvement to the slips in the district at great expense.

The hearing brought out the fact that the proposed improvement to the Erie canal in the deepening to nine feet would seriously jeopardize the business interests of Albany. The proposed work involved the changing of the grade of streets and the raising of all the piers in the lumber district a foot. While the expense of the state was to be $100,000, the lumber dealers would be put to an expense of $150,000. The greatest danger, however, was from the interference to the lumber business, as the raising of the ground would involve the removal of one hundred millions of feet of lumber stored on the piers and docks in the lumber district. This fact was brought out very strongly before the state engineer.

Engineer Adams said he was ready to change the plans, and the agreement finally reached to the satisfaction of all parties was that the deepening should be accomplished by excavating from the bottom of the canal and that on the side earth should be left so as to render the re-building of the lumber district piers unnecessary. This will involve the re-building of the wall on the tow-path side of the canal and will make the nine-foot channel only sixty feet wide.

Minor changes will be needed at lock 1, which can be made at small expense, but lock 2 will have to be re-built by the state at the expense of probably $50,000. This work is necessary because the bottom of the lock will be left two feet higher than the bottom of the canal, and the success of the plan for deepening the canal makes it necessary that it shall not be more than a foot higher. These changes will render improvement to the slips in the Albany lumber district unnecessary, the lumber dealers being satisfied with present conditions so far as they are concerned.

NEWS AROUND THE LAKES.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

The steamer Fayette Brown arrived here light from Milwaukee Tuesday.

The steam barge Colin Campbell left here Saturday for Milwaukee to lay up.

J. G. Keith & Co. chartered the steamer Thomas Maytham for corn to Buffalo at 3 cents.

Elphicke & Co. chartered the steamer George Stone for 85,000 bushels of corn to Port Huron at 3 cents.

Palmer, Cook & Calbick chartered the steamers Monohansett and Madagascar for corn to Port Huron at 3 cents.

Thos. Wilson, M.A. Bradley, John Mitchell, H. A. Hawgood and P. Minch, prominent Cleveland vessel owners, have been visiting Chicago this week.

The steamers H. J. Jewett with merchandise, Yuma C. Tower, Jr., Frontenac and Pathfinder with coal arrived here from Buffalo Tuesday morning.

W. M. Egan chartered the steamer City of Naples for 110,000 bushels of barley, and John Craig for 90,000 bushels of corn, both to Buffalo at 3½ cents.

Carr & Blair chartered the steamers John F. Eddy and Iosco for corn to Port Huron at 3 cents, the steamer John Mitchell for corn to Buffalo at 3½ cents.

The steam barge Charles Reitz left here Saturday for Ludington to load lumber for this port ; also the steam barge M. F. Butters on Tuesday. The Butters will make one or two more trips this season.

Chartering is not ended at this port yet and if the weather holds on favorable as it is now several more grain cargoes will leave here this week. The Wilson Line steamer Yakima cleared for Buffalo late on Wednesday night, the last to depart up to date.

Capts. Wm. G. Keith and Dennis Sullivan and J. W. Bates commenced Monday making a survey on the steamer Servia in one of Miller Bros.' dry docks. She has sustained eonsiderable damage to her keel and bottom, and will require a large amount of work done on her.

Capt. Dan Stalker, commodore of Valentine Fries' fleet, returned here from Milan on Sunday. The steamer William Edwards and consorts Golden Age and Charles Foster are laid up here with their cargoes of coal on board. The Foster is receiving repairs ; the Edwards and Age will receive general repairs and calking.

J. J. Rardon & Co. chartered the steamer Australasia for corn to Port Huron at 3 cents, the City of Cleveland for corn to Erie at 3 cents, the steamer Henry Chisholm for corn to Buffalo at 3 cents, the steamer Italia for corn to Buffalo at 3½ cents to hold, the steamer Yakima for corn to Buffalo at 3 cents.

The schooner Barbarian, Capt. A. Hanson, which was chartered by B. F. Davison for a cargo of hardwood lumber, left here for Pine Lake on November 20. The latest report of the schooner was that she ran into Sturgeon Bay for shelter early Monday morning, December 10th. The Barbarian is the only schooner hailing from Chicago that is out of port at the present time.

The life saving stations at South Chicago and Jackson Park were closed for this season on the 5th of this month. The Chicago station will be closed on the 15th inst. The members of the Chicago life saving crew will give their first annual ball, Saturday, December 15th, to be held at Mueller's hall, 364 North avenue, near Sedgwick street. Vessel men should encourage these brave and hardy men.

The steamer Adella Shores went to South Chicago Saturday to go into dry dock for fastening. She has done excellent work since she came out in July last, and has proved herself a thoroughly good boat, a large carrier and a strong puller. Her machinery, built by S. F. Hodge & Co., Detroit, is pronounced by chief engineer Wm. McKittrick as working to perfection. Capt. J. J. Carr and chief engineer McKittrick are not a llttle proud of her.

This week the steamer E. M. Peck was in dry dock for a new shoe, the schooner Constitution for re-calking ; she will also receive a new mainmast ; the steamer Servia is in for survey and repairs, the steamer John Oades for 80 feet of new keel, new forefoot, new piece of stem two pieces of garboard and re-calking bottom, the steamer D. C. Whitney is having her center-board and box taken out and box plugged and receiving general repairs.

The captain of the steamer Frontenac, which arrived here Tuesday morning, reports that the steamer Spokane was picked up, disabled, on Lake Michigan off Point Betsey, Monday evening, by the steamer City of Venice. The two steamers headed for Milwaukee. The City of Venice is bound to this port. The Spokane left here Sunday afternoon with a cargo of package freight for Buffalo. She is owned by Capt. Thos. Wilson, of Cleveland, and was chartered by the Lackawanna Line for the trip.

J. B. Bates & Co., shipbuilders, are doing some general repairs and calking on the steamer Iron King, calking the top sides and putting two strakes of plank on the top sides of the Iron Chief, refastening and calking the top sides of the steamer George T. Hope, calking top sides of the schooner Emma C. Hutchinson, doing repairs on the barge Iron City, giving the steamer A. A. Parker some new stanchions and rail, doing some general repairs on the barge B. W. Parker, and steamers Germanic, J. N. Glidden, Queen of the West, Rube Richards and Sachem; recalked the decks of the steamers W. B. Morley and New Orleans.

CLEVELAND. O.

Special Correspondence to The Marine Record.

The Cleveland, Lorain & Wheeling Railroad Co. will probably build a new tug for harbor work at Lorain next season.

Capt. Hawgood has been at Chicago during the week, and has laid up the entire fleet owned by Hawgood & Avery at that port.

The steamer Maurice B. Grover came in from Buffalo late Tuesday night to go into winter quarters. The I. W. Nicholas reached here on Thursday.

Repairs on the steamer V. H. Ketchum, at the Ship-Owners' dry dock are progressing rapidly under the supervision of Capt. W. S. Mack, the managing owner.

The steel steamer Maritana is in the Cleveland dry dock undergoing a careful overhauling and it will be three or four days yet before work will be completed on her. Nothing is being left undone to keep this large vessel up to the highest notch of efficiency in every respect.

The first meeting of the Shipmasters' association will be held at their rooms on Water street on Friday, and each Friday thereafter during the winter months. This excellent institution, which is a beneficial one in every respect, deserves the highest support ot all engaged in maritime pursuits. As a result of this organization the widows and other relatives of masters lost or died during the year has been awarded the sum of $1,000 collected through assessing each member a certain amount, and in several instances it has been a God-send to those left to battle with the fag end of life.

A copy has been received at the Cleveland office of THE RECORD of *The Weekly Commereial News and Insurance Record*, of San Francisco, from Capt. D. R. McDonald, now of San Diego, Cal., and whom some of our older readers will remember as being engaged in the lake trade. Aside from learning that our old-time friend is prosperous and enjoying excellent health, we find from the copy of the journal which he sends, that a North Pacific pilot chart has been issued by the hydrographic department and has been reproduced on a whole page of the paper mentioned above.

Capt. Orville W. Green, master of the steel steamer Griffin, is now engaged laying up his boat here for the winter and expects to be ready to start home to Chicago in about a week. The Griffin made twenty-five Lake Superior trips this season and, having no mishaps or casualties the season from a sailing standpoint must be pronounced a very favorable one. Capt. Green is one of the oldest and best known sailing masters afloat, having been brought up in the sailing vessels of three or four decades ago and had charge in the palmy days of the clipper grain carrying schooners and many record trips under canvas stand to his credit.

This has been the busiest week the dry docks have ever experienced at this port ; that is to say, the several docks have not been an hour idle and there is lots of work ahead. From the present outlook the manager of the Ship Owners' Dry Dock Co. will hardly have a chance to lengthen one of their docks to 500 feet this winter, as all present facilities will be required to keep ahead of his work. During the week the Minnesota Steamship Co. have had in dry dock at the Ship Owners' the steel steamers Marina, Mariska and the Manola, the latter vessel being in dock now, and besides giving these fine new steel steamers a thorough overhauling and repairs where necessary, they are to be further fitted out duriug the winter with special arrangements for towing with flexible steel wire hawsers.

Commander C. D. Sigsbee, chief hydrographer of the United States navy department, paid a visit to this port on Tuesday for the purpose of inspecting the branch hydrographic office which was established a short time ago, and now in charge of Ensign Cole, U. S. N. He made a thorough inspection, and expressed himself as much pleased with the location of the office and the manner in which it was conducted. He said that the office would undoubtedly prove of great service to the marine interests not only in Cleveland, but to other ports along the lakes. Colonel Jared A. Smith, corps of engineers, U. S. Army, in charge of the conservancy and improvements of rivers and harbors for this district as well as engineer for the light-house board, Mr. Luther Allen, president of the Chamber of Commerce, and other prominent citizens welcomed Commander Sigsbee to the city and made his brief stay very pleasant.

The yacht-like and speedy little steel steamer Pioneer is at the yards of the Cleveland Ship Building Co, receiving repairs to her upper works and will be docked at an early date for a new propeller wheel larger than her present one and which is likely to increase her speed from a fraction over 15 miles an hour to at least sixteen. While in dry dock she will also undergo some bottom repairs, several plates having to come off and be re-rolled. The large steel steamer Griffin is also at the docks of Cleveland Ship Building Co. undergoing repairs, a couple of plates being taken out of her port quarter where she was slightly damaged through collision with the steamer Alaska. This steamer, under the careful handling of Capt. Orville Green, looks, after the several seasons' work, as if she had just left the stocks. Her hull is smooth, decks and deck work in excellent condition, and there is a general well kept up look about her that denotes the well advised and proper amount of attention so necessary in a modern steel freight steamer It is beyond question that Capt. Green thinks highly of his fine command.

DETROIT, MICH.

Special Correspondence to The Marine Record.

Thomas J. Teahan, a marine engineer has invented an automatic machine for pulling the whistle cord of a boat. It is compact and simple in construction, weighs but 12 pounds and is placed on a bracket in the pilot-house from which it is connected to the whistle either by a line or hydraulic pressure direct to the whistle. By the manipulation of several cams attached to a rotary cylinder, the deck officer can regulate it to blow at intervals of from 25 seconds to 1½ minutes. By tightening a small chain attached to a cog that holds a fly-wheel, steam comes through a pipe from the steam-steerer or steam-capstan. The fly-wheel, released, begins to revolve and turn a shaft, at the end of which is a cog connection with the rotary cylinder. The cylinder slowly revolves, and as the cams strike a valve, steam is let into a larger cylinder. In this cylinder is a long piston with a line attached, this line being fast to the whistle-rope. As the steam enters the cylinder, the piston is forced out, pulls the cord and blows the whistle. It requires no attention after it is once started. Teahan has sold an interest in the patent to Wm. Rymer, of this port, and the latter manufactures it. The City of Milwaukee, Capt. McLachlan, has been fitted with one of the new machines.

The Grummond Wrecking Co. has succeeded in raising the schooner M. P. Barkalow sunk in Maumee River with a cargo of 287 tons of coal. The schooner will be repaired at Toledo.

The annual meeting of the Inland Lloyds was held here on Wednesday. The usual arrangements for the publication next season of the Inland Lloyds Insurance Register, together with the thorough inspection of all lake vessels for insurance purposes were made. The following officers were elected: President, J. J. Clark. Detroit; vice president, C. A. McDonald, Chicago; secretary and treasurer, A. H. McDonald, Detroit. Capt. Daniel McLeod was reappointed manager and chief inspector.

William Livingstone, an old-time vessel owner and

father of William Livingstone, Jr., a prominent citizen, died on Wednesday afternoon aged eighty-two years. Great sympathy is expressed in vessel circles for Mr. Livingstone, Jr., who is one of the foremost and generally best liked vessel owners on the lakes.

U. Grant Grummond, manager of the Grummond Line, is raising the steambarge Burlington which burned last spring and sank on the Canadian side of Detroit River, below Sandwich. The Canadian Government awarded the contract for removing the wreck to J. A. H. Campbell, marshal for Western Ontario, who sublet the contract to Mr. Grummond. The wrecking job is said to be an easy one. Her hull contains a good compound engine, a steel boiler, three years old and 100,000 feet of pine lumber in her hold. Below the water line the hull is as sound as before the fire and the forward portion of her upper works is in good condition. Mr. Grummond will rebuild her during the winter, but has not decided what kind of a craft he will make of her.

The light-ship from Corsica Shoals was taken from her moorings and reached Port Huron on Wednesday. All the stakes in St. Clair River were also lifted.

The tug Boynton left Port Huron on Wednesday with the disabled steamer Wyoming in tow for Buffalo. The ranges at Fort Gratiot will be kept lighted until after the Iosco and Italia pass down.

The steamer Ionia was chartered here Wednesday for winter storage on grain and freight to Buffalo at 2½ cents, the same rate as that which prevailed last winter

The value of the fireboat has been shown in so many of the downtown fires that one of the items in the next budget of estimates will be for a new fireboat. It is thought there will be no opposition to this, and if the boat is built it will probably be on lines drawn by Frank E. Kirby and have a steel hull. The Detroiter is wood, but it is believed steel will better answer the purpose. The Detroit Dry Dock Co., it is understood, will give the right of way for a pipe line through the dock property at the foot of Orleans street, and will lease accommodations to the fireboat for the nominal rental of $1 a year. With another fireboat in the eastern part of the city the manufactories in that section could feel very safe and the engine companies would not all have to turn out in the event of a big fire.

A meeting of vessel owners called on Friday morning last at Capt. E. M. Peck's office, for the purpose of taking action on the death of Capt. John Pridgeon, was very largely attended, all of the vessel owners of the city being present. The meeting was called to order by Capt. J. W. Westcott. On motion Capt. E. M. Peck was made president and W. Livingstone secretary. On motion a committee of three, consisting of W. Livingstone, A. A. Parker and Cash P. Taylor were appointed to draft suitable resolutions. Recess was then taken to enable the committee to report. After recess the committee reported the following resolutions, which were unanimously adopted:

In the memory of their long time and valued associate, the late Capt. John Pridgeon, the representatives of the vessel interests of this city desire to place on record such evidence of their appreciation of his inherent good qualities, made manifest through a long period of active life, as they feel to be justly due, and to express as well as these few words may, their sincere sorrow and sympathy for the bereaved family now burdened with grief.

We feel that no estimate of Capt. Pridgeon's life and character would be just and complete that did not accord to him rare and rugged honesty, almost resistless energy, intense loyalty to his friends, and a marked ability to plan and direct to a successful end his extensive business operations. His successful career was all the more remarkable because to him were denied in early life the advantages which are now deemed necessary to success in almost every field of enterprise or labor.

If he had faults, so have all men whose virtues entitle them to grateful remembrance. Recognizing his rare good qualities and realizing our own loss in his death, to the stricken family whose grief cannot be measured but may be tempered by words of sympathy, we tender. with this kindly tribute to the memory of our deceased friend and associate, our heartfelt condolence.

It was unanimously carried that a copy of the above resolutions be engrossed and sent to the family of the deceased. It was also decided that the vessel owners attend the funeral on Saturday in a body.

PORT HURON, MICH.

Special Correspondence to The Marine Record.

The shipyards expect a great deal of repair work this winter.

The Jenks Ship Building Co. have a large steam barge of about 1,500 tons capacity ready to launch. She will be placed in the Lake Superior copper trade.

The lumber barge Peshtigo is at the Jenks shipyard. She is to receive an entire rebuild and be changed to a steam barge. She will receive a new compound engine. Capt. John Pringle is her owner.

The steamer S. C. Baldwin which was sunk by collision with the Iron Queen near Marine City and also badly damaged by fire since. Will be rebuilt during the winter at Dunford and Alverson.

The Wolverine Dry Dock Co. have just completed the last surf boat for the U. S. life-saving service. They have nine boats in all and have now a staff of forty men at work in their yard.

The tug Geo. E. Brockway will be entirely rebuilt this winter and made as good as new. Tug C. D. Thompson of the same line will go to Ludington to work for the F. & P. M. R. R. during the winter. She is quite an ice crsuher.

The Kendall Marine Reporting Co. have been awarded the contract to remove the wreck of the old schooner, Ottawa, from Black River. She was sunk about 20 years ago by the steamer A. L. Craig near Sarnia, Ont. She was raised and towed into Black River and has laid there sunk ever since. She is now found to be an obstruction, hence the removal.

The tow barge Alaska of Cleveland will be entirely rebuilt at Marysville, this winter.

The steambarge T. D. Stimpson will receive new decks and deck frames.

Barge Belle P. Cross is to be entirely rebuilt, also have her engines compounded by the Phœnix Iron Works.

Steamer Byron Whittaker, is being calked on top sides and decks. She is holding a cargo of corn.

TORONTO, ONT.

Special Correspondence to The Marine Record.

The propeller L. Shickluna is being made snug for the idle months at the Sylvester wharf.

The propeller Erin and her consorts have gone into winter quarters at St. Catherines and Port Dalhousie.

The schooner St. Louis has been moved from the Burns' slip to the Sylvester wharf at Church street, where she will be for the winter.

The propeller Niagara has arrived from Charlotte with 606 tons of hard coal on her final trip for the season. As soon as unloaded she went into winter quarters at the Geddes wharf.

About the final arrival for the season in schooners was the J. G. Worts, which came in the other day from Kingston, where she had taken a cargo of grain from Pelee Island. She is being put into wintering condition at the Sylvester slip.

The propeller Persia, so long a favorite freight and passenger carrier on the Montreal-Toronto-St. Catherine's run, is to be sold at executor's sale by auction in the rotunda of the Board of Trade here next Wednesday December 19. The Persia is part of the estate of the late James Norris, of St. Catherines.

All the biggest of the Canadian freight propellers owned at this end of the chain of lakes have been laid up for the winter at the Geddes wharf. These include the steamers Rosedale, Algonquin, Business and Niagara, the former two belonging to Messrs. Crangle, Geddes & Hagarty, and the latter two to the J. & J. T. Mathews Line.

The steamer City of Windsor has been tied up at the Burns' wharf, by Marshal Capt. Boyd at the instigation of the Dominion minister of marine. Last Monday a warrant was issued and posted on the vessel, setting forth that she is libeled for $3,851, cost for repairing the damage the vessel did to the lock at St. Catherines in the Welland canal last summer. If the money be not paid she will be sold at auction.

Although the weather continues mild and open here, it may be said that navigation is practically over for this year. The board of harbor commissioners have ordered up all the channel and harbor buoys and shortly the lights at Gibraltar Point and out Queen's Wharf Head will be discontinued for this season. One or two small stone conveying schooners keep on arriving every day, but the first really smart snap of Jack Frost will cause them to strip and retire into their hibernation.

J. A. C.

"SOO" CANAL TRAFFIC.

A comparative statement of the commerce east and west bound through St. Mary's Falls Canal, Mich., for the month of December, seasons of 1893-4, as furnished by the canal officials, is as follows:

EAST BOUND.

ITEM.	Designat'n.	Sea. 1893.	Sea. 1894.
Copper	Net tons		740
Corn	Bushels		
Building Stone	Net tons		
Flour	Barrels	125,513	226,867
Iron Ore	Net tons	3,666	4,228
Iron Pig	"		3,484
Lumber	M.ft.B.M.	46	3,850
Siver Ore	Net tons		
Wheat	Bushels	1,191,385	373,601
Unclassified Freight	Net tons	4,193	592
Passengers	Number	10	36

WEST BOUND.

ITEM.	Designat'n.	Sea. 1893.	Sea. 1894.
Coal, Anthracite	Net tons		6,400
Coal, Bituminous	"		
Flour	Barrels		
Grain	Bushels		
Manufactured Iron	Net tons	200	
Salt	Barrels	3,600	
Unclassified Freight	Net tons	1,457	
Passengers	Number		

East bound freight, net tons,	49,588
West " " "	6,400
Total	55,988

Canal closed December 6, 1894.

REPORTED BY THE LOOKOUT.

There are fifty-six vessels in winter quarters at Toledo.

The steamer City of Fremont will receive repairs at Manitowoc to the extent of $5,000.

John Craig, president of the Craig Shipbuilding Co., Toledo, has purchased of Lafayette Sullivan the barge Mariner.

Duncan Robertson, of Grand Haven, who has been in the shipbuilding business since 1867, has retired. He served his apprenticeship on the Clyde.

Residents of Holland, Mich., have purchased the following vessel property: Schooner Fitch, by Charles Blink and schooner Phantom of South Haven, by J. Jennings and Frank Stansbury.

The engines of the Lackawanna liner Wyoming are a complete wreck, the result of the steamer being disabled on Lake Michigan last week. The only part of the machinery that is of any value are the frames.

The steamers of the Ogdensburg Transit Co. have been laid up for the winter. The Gov. Smith, F. H. Prince and H. R. James are at Chicago and the J. R. Langdon, W. L. Frost, W. J. Averill, W. A. Haskell and A. McVittie are at Ogdensburg.

The Welland canal was officially closed December 11, for the season. The following vessels are wintering at Port Colborne: Cameron, Annabel Wilson, Annie L. Peterson, Wawenosh, Clinton, and two barges, canal tugs, Albino, Wilson, Golden City, S. Neelon, Alert, Escort, Hese, Hector and Mary.

The Spokane had the most valuable cargo of merchandise ever shipped out of Chicago in December, and the underwriters and shippers had an anxious time of it until she was towed, with her broken shaft, into Milwaukee by the City of Venice on Tuesday afternoon, December 11. The salvage will cost the underwriters a good part of the premiums they have taken in on their December business.

On May 18, 1892, the schooner Josephine, loaded with pulp wood, in tow of the tug W. H. Seymour, collided with the schooner Aloha in tow of the propeller Charles Hebard in the lower end of Big Lake George. The Josephine was sunk. Frank Perry, the vessel's owner, has brought suit in the United States district court at Detroit against Charles and Charles S. Hebard, owners of the propeller, for $4,000 damages.

The revenue cutter Johnson was placed out of commission Nov. 30. During the past season she has steamed 1,883 knots, examined 1,048 vessels and reported 31 for violation of law. She has assisted to release four vessels that were ashore. She now is laid up in winter quarters at Milwaukee. Capt. Davis and chief engineer Stevens remain by the vessel. The other officers have been granted thirty days leave of absence.

MARINE TREASURY DECISIONS.

TUGS—CLEARANCE OF ON NORTHERN FRONTIERS.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, D. C., Sept. 22, 1894. SIR: This office is in receipt of your letter dated the 6th instant complaining that the collector of customs of Toledo, Ohio, requires your tugs to clear, when proceeding to another port, light after having arrived at Toledo with a tow. Tugs duly enrolled and licensed on the northern, northeastern and uorthwestern frontiers of the United States are not required to clear at the custom-house when "exclusively employed in towing vessels." (Sec. 3,123 R. S.)

Tugs without tows are not included in the exemption, and the tugs you mention can not be considered as "employed in towing" when proceeding light to other ports. This office holds, therefore, that they should be cleared at the custom-house in the same manner as other vessels. To L. S. SULLIVAN, ESQ., Rooms 6 and 7, Neptune Block, Corner Jefferson and Water streets, Toledo, Ohio.

CLEARANCE INTERMEDIATE PORTS.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, D C., September 27, 1894. SIR: Referring to your letter dated the 7th inst., relative to the entry and clearance of the steamer New Island Wanderer, when navigating between Clayton and Alexandria Bay, via. Gananoque and Brockville, this office has to state that the collector of customs at Cape Vincent, under date of the 24th inst., reports that Gananoqua is not an "intermediate port."

It appears, therefore, that his action in declining to allow entry and clearance in the manner mentioned in section 2,793, R. S. was correct, that section relating only to cases in which the vessels concerned touch at intermediate foreign ports, and not to cases in which they touch at foreign ports, and not to cases which are not intermediate within the meaning of the statute.

TO W. C. HUDSON, ESQ., Alexandria Bay, N. Y.

TONNAGE TAX.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, D. C., September 28, 1894. SIR: This office is in receipt of your letter dated the 5th inst., stating that the Canadian steamer Spartan transports passengers, baggage and freight from Montreal to your district, the master taking a clearance to a port in Ontario, and thence to Alexandria Bay.

Your inquiry whether tonnage tax be levied on the vessel is answered in the affirmative.

TO COLLECTOR OF CUSTOMS, Cape Vincent, N. Y.

SHIP TIMBER—BOAT KNEES NOT FREE.

Before the U. S. General Appraisers at New York, August 16, 1894.

In the matter of the protests. 19,055 b-123 and 19,186 b-153, of F. C. Perry against the decision of the collector of customs at Boston, Mass., as to the rate and amount duties chargeable on certain ship knees, inported per Boston, January 20 and 27, 1893.

Opinion by WILKINSON, General Appraiser.

The goods are curved pieces of sawed wood, the edges hewn, about 4 feet long, 1 inch thick, 4 inches wide. They are known as "knees," and are designed and suitable for the knees of a skiff or small boat.

A WEEK'S WORK AT AN ENGLISH SHIPYARD.

Mr. Hunter of the Tyne Shipbuilding firm of Swan & Hunter has visited the lakes several times and is more or less known at the larger lake ports notably at Cleveland. The work at his yard during one week last month is briefly summed up as follows. The successful launch of a finely-modelled steel screw steamer, length over all, 445 ft.; breadth, 49 ft.; depth molded, 32 ft. 10 in. The vessel was especially constructed for the Australian frozen meat trade, to the highest class at Lloyd's, under special survey, and contains insulated holds capable of carrying about 100,000 frozen sheep. She is built of the three deck type, with full poop, bridge house 250 ft.long, and along top-gallant forecastle, with cellular double bottom throughout and six watertight bulkheads. The engines are triple expansion, sizes of cylinders being 30 in., 47½ in., and 80 in. by 48 in. stroke.

The day of the launch witnessed the trial trip of a steamer built by the firm for Norwegian owners of the following dimensions: 340 feet length, 44 feet beam, 29 feet 10 inches depth to spar deck; classed 100 A1 at Lloyds, and is the largest steamer by nearly 1,000 tons now owned in Norway. This steamer will carry a deadweight cargo of 5,500 tons, and a measurement cargo of about 6,500 tons on a moderate draught. She is supplied with a full equipment of powerful steam winches and very complete cargo gear. Immediately after the trial she shaped a course for Philadelphia, where she will load 140,000 cases of oil for Japan.

The same week the Tokomaru, built by Swan & Hunter, for the New Zealand trade, and which has received extensive additions and fitted with insulated holds to carry about 100,000 frozen sheep, left the Tyne for her trial trip and afterwards proceeded to London, the trial trip having been satisfactory in every respect. The dimensions of the Tokomaru are: Length over all 440 feet, breadth 53 feet, and depth moulded 34 feet, and her deadweight capacity is about 9,000 tons. The main engines are 31 in., 50 in., 80 in. diameter by 54 in. stroke, with three large double ended boilers, 150 lbs. working pressure, fitted with serve tubes.

Also the fine new steel screw steamer Musician underwent her trial trip on the measured mile. She has been built for the East India and general trades, is 400 feet long, 47 feet broad, 31 feet 6 inches depth moulded, and is built on the three deck grade, of the highest class at Lloyd's and under a special survey. The cellular double bottom extends the length of the vessel. The engines have cylinders 27 in., 44 in., and 71 in., by 42 in. stroke; the boilers are built for a working pressure of 180 lbs., on the square inch. After a very satisfactory trial a speed of 13.48 knots was attained, the engines running at 72½ revolutions per minute, and to the satisfaction, in all respects, of the owners' representatives. The steering of this large vessel was particularly marked, the half circle being performed in three minutes, and she was stopped dead in one and a half minutes after the order was given to go full speed astern, just as she completed the measured mile, and when running at full speed. The vessel proceeded on her voyage to New Orleans. One launch and three trial trips show a good week's work for one firm.

TACOMA COMMERCE.

The report of the harbormaster of Tacoma, Washington, for the month of November is as follows:

Inward registered tonnage	54,389
Outward " "	58,611
Inward cargo	5,640
Outward "	69,610

EXPORTS.

512,298 bushels wheat (foreign)	$254,416
464,866 " " (coastwise)	185,946
31,018 bbls. flour (China)	68,642
7,328,771 ft. lumber (foreign and coastwise)	76,175
25,230 tons coal (San Francisco)	75,690
Other general merchandise (foreign)	37,547
Total	$698,416
Arrivals	35
Departures	39

THREE SEA-GOING TORPEDO BOATS FOR THE U. S. NAVY.

In the appropriation for the naval service for the fiscal year ending June 30, 1895, approved July 26th, 1894, provision is made, under "Increase of the Navy," for three torpedo boats to cost all together, including armament and equipment, not more than $450,000.00. The boats are to be built under the provision of the Act of August 3rd, 1886, entitled "An Act to increase the Naval Establishment," as to material for said boats, their engines, boilers, etc., save that in all parts said boats shall be of domestic manufacture.

The Department, in advertising for these boats to be built by contract, will invite proposals under two classes, viz:

Class 1: For the construction of the hull machinery, including engines, boilers and appurtenances, and equipment, complete in all repects, in accordance with the plans and specifications provided by the secretary of the navy.

Class 2: For the construction of the hull and machinery, including engines, boilers and appurtenances, and equipment, complete in all respects, in accordance with the plans and specifications provided by the bidder.

Bidders may, if they so desire, adopt the plans and specifications of the department for the hull or machinery, or any part of either, and embody them in their plans and specifications to be submitted with their proposals.

In order that ample time may be given for the preparation of plans. A circular is issued to ship and engine builders who may desire to submit designs of their own.

The following elements and qualities must be obtained in the designs:

The average speed to be maintained for two consecutive hours under conditions to be prescribed by the secretary of the navy must not be less than 24½ knots per hour.

The boats are to be built and fitted complete for sea by the contractors with the exception of the ordnance and ordnance outfits of all kinds, and sea-stores. That is, the contractors furnish small boats, furniture of all kinds, electric plant, anchors, cables, rigging, awnings, ridge ropes, hatch hoods, galleys and furniture for galleys of all kinds. Two conning-towers will be placed on each boat, one about 30 feet from each end. The spaces allowed for torpedo tubes, the torpedoes and appurtenances and rapid firing guns are to be shown on the plans of designs submitted. Accomodations must be provided for 4 commissioned officers, 12 men and 4 machinists. An incandescent electric lighting plant must be fitted but no search light will be required.

The boat on her trial trip for speed must carry the following weights additional to that of the complete hull, machinery and spare parts:

Torpedo gear and torpedoes, rapid firing guns and ammunition, 6.7 tons; Coal, 9 tons; crew, boats, anchors, electric plant, equipment, etc., 9 tons; total, 24.7 tons. The coal capacity must be at least 45 tons of 43 cubic ft. per ton.

Any and all designs for these boats submitted must be accompanied with complete plans and specifications for building and calculations of weight, displacement and range of stability under the conditions of trial and deep load displacement; also calculations showing trim and range of stability when the several water-tight compartments are flooded; also such calculations as will demonstrate the satisfactory strength of the whole structure.

The design of machinery submitted must fulfill the general requirements to be issued by the bureau of steam engineering. Such design must be acompanied by drawings and specifications in sufficient detail to enable the strength of the principal parts and the probable efficiency of the whole design to be readily determined. Further, all designs must be accompanied by detailed calculations for the weight and position of center of gravity of all machinery, the former not to exceed the weight assigned in this circular if it is proposed to adopt the department's design of hull.

The general dimensions and weights of department's design are as follows: Length on load line, 160 feet, beam on load line, 16 feet, mean draft, 5 feet, displacement, about 138 tons, I. H. P., about 2,000 tons, speed per hour, 24½ knots. Armament: 3 single deck torpedo guns, 3 1-pdr. rapid firing guns, 4 automobile torpedoes, 600 rounds 1-pdr. ammunition. Weights: Machinery complete, 60 tons, ordnance, 6.7 tons, coal (trial displacement) 9 tons, crew, boats, anchors, water, electric plant, equipment, etc., 9 tons.

If on trial the average speed of the boat shall equal or exceed 24½ knots per hour for two consecutive hours, the boat will be accepted in so far as the speed is concerned. If the speed falls below 24½ knots per hour, and exceeds 23 knots the boat will be accepted at a reduced price, the reduction being at the rate of $10,000.00 per knot speed below 24½ knots. If the speed falls below 23 knots per hour the boat will, in the discretion of the secretary of the navy, be rejected or accepted at a reduced price mutually agreed upon between the secretary and the contractors. In case of rejection any money that may have been paid to the contractors on account shall be refunded.

THE American Ship Windlass Co., Providence, R. I., have just received an order for two of their No. D "Providence" power capstans for export. The Liverpool agents of the company note the sale of two No. E "Providence" power capstans for the ship building on the Clyde to the order of Messrs. Hughes, Jones & Co., of Liverpool.

OBITUARY.

CAPT. JOHN PRIDGEON.

One of the most remarkable men in the vessel business was Capt. Pridgeon of Detroit who passed away last Thursday after some months of a lingering spell of indifferent health.

A brief synopsis of the career of the late vessel owner will serve to point out to many how by close attention to business and frugal habits an ample competency was amassed. Mr. Pridgeon was born on a farm in Lincolnshire, Eng , in 1828. At the age of seven he was brought with the family to Michigan, settling in Greenfield township. An uncle worked the farm, and Mr. Pridgeon's father, after renting a sixty-acre farm for a period, purchased it and lived there for six years. Mr. Pridgeon had received a little education in England, and went to school one term while on the farm. This was his start in an educational way. When 13 years of age he went to work in Detroit. After awhile as teamster he engaged as stage driver between Detroit and Mt. Clemens. The next year found him a cook on a scow sailing on the river, and he alternated sailing summers and driving winters for three seasons. He was a deckhand on the steamer Boston, and saved a little money all the while. At the age of 18 he went to New York and shipped in the navy. After a cruise in the Pacific, Mr. Pridgeon came back to this country with something like $500 saved up. He shipped as wheelsmen on the little steamer Telegraph, running from Detroit to Port Huron, and afterwards bought a team of horses. In the winter he went into the pine woods and was employed in a lumber camp, where he swelled his capital to $800. Another team was added to the equipment in the spring, and Mr. Pridgeon hired men to haul sand, going back on the Telegraph as mate.

The combined industries enriched him, and in the winter he took both teams back to the woods, driving one himself. This increased his possessions to something like $2,000, and in May, 1851, he married. Buying a lot and erecting a cottage, he continued his teaming business which was growing profitable. He continued at this two years, and the desire for sailing returning, he disposed of his horses and wagons for $3,000 and bought an eighty-ton steamer, with which he towed sand barges from Springwells to the dock occupied by French, the paver. The first year netted him $4,000, the second $3,000 and then he sold the steamer for $4,000, having accumulated in all $12,000.

The year following found him more extensively engaged in the marine business, as he bought the propellor Napoleon from Oliver Newberry for $6,000 and did a general towing and lightering trade on the old north channel in Lake St. Clair before the canal was built. Two years after he bought her he sold the Napoleon for $1,000 more than she cost him and bought the steamer Canada. Mr. Pridgeon extended his possessions between 1866 and 1884 until at the latter date he was the largest owner of vessels, steamers and tugs in Detroit. He had been interested with Thomas Fitzpatrick, now of Cleveland; J. C. Nyman, of Chicago, and the late John Demass of Detroit, Mr. Pridgeon's rare judgment saved him thousands of dollars in his vessel property and he never encountered any very severe losses.

Capt. Pridgeon was a well known man in Detroit commercial affairs, and managed his business with such skill that from nothing on the start, he accumulated fully $1,000,000 before he was incapacitated for work. His rare judgment and ready figuring on matters in which there were contracts won for him the admiration of all who dealt with him. A meeting of vessel owners was held at the office of Capt. E. M. Peck where suitable action was taken and appropriate resolution drawn up on the death of the well known owner and business associate.

LUMBER AT DULUTH.

It has been clearly seen this season that lumber shipments from the head of the lakes will shortly become an important factor in lake transportation. As an indication of how this industry is progressing we may point out the purchase made last week by C. M. Hill, of Saginaw, who has for seven years or more been interested in pine in Duluth district. On Friday, Mr. Hill secured from Horace Williston, who has been acting for the creditors, the real and personal property of the insolvent Mesaba Lumber Co. The price was $75,000. Mr. Hill gets possession of a saw and planing mill at Mesaba, where the Duluth and Iron Range road crosses the Eastern Mesaba Range, also a town site consisting of 80 acres, on which already some forty dwellings, a logging railway, three miles long, with one locomotive and several logging cars, and pine lands tributary together with 25,000,000 feet of timber standing. His former holding and his new purchase will bring Mr. Hill's stumpage tributary to the mill up to 100,000,000, and he is now figuring on a purchase of some 50,000,000 feet in addition. He will at once improve the property by putting in a burner and also a band mill, greatly increasing the capacity, and in February will start up with the intention of running all the year round. He has enough timber advantageously located to Mesaba Station, a busy village, for 10 or 15 years. He will have some timber over the Iron Range road and about all of his lumber will seek the Eastern market.

SUPERIOR AND DULUTH HARBORS.

Secretary Lamont has sent to the house a report of a commission of three engineers appointed to examine the harbors of Superior and Duluth, and the entrance thereto, with a view of ascertaining the cost of deepening them and their entrances to a uniform depth of 20 feet. The commission presents estimates amounting to $3,130,553 for executing the work mentioned and say the estimates can undoubtedly be greatly lessened if the appropriation for the 20-foot project be a continuous one so that contracts for the whole work can be made at once.

"THE THREE NEW TORPEDO BOATS."

The three new boats which were authorised by the Naval Appropriation Bill, will, in general plan follow the design of the Ericsson, and have a speed of about 24½ knots. This will fall far short of the speed of the new Yarrow and Thorneycroft boats, or even of those of Schichau and Normand. The reason for this, it is said, is that the appropriations and the dimensions to which the boats limited will not admit of as high a speed as has been attained by some of the most recent foreign boats. The Hornet, it will be remembered, reached a speed exceeding 28 knots as a maximum; and the Daring, another Thorneycroft boat, reached the very high speed of 29.268 knots for a single knot. The Adler, built by Schichau, of Elbing, for Russia, reached the great average of 27.4 knots. A couple of Yarrow boats built for Italy reached a speed of 25.1 and 24.96 knots respectively. The Forban—now building by Normand of Cherbourg—is said to have a designed speed of 30 knots; and an aluminum torpedo-boat is spoken of which it is expected will have the astonishing speed of 31 knots. In the mean while, much doubt is expressed with reference to the actual value of torpedo boats in naval warfare.

RAILROAD TRANSPORTATION AND CARRIERS SUBJECT TO THE STATUTE.

According to the Eighth annual report of the Interstate Commerce Commission that body has held, and the ruling is clearly sustained by the courts, that the fact of continuous transportation of through shipments over connecting roads is sufficient evidence of an arrangement for its performance. The application of the act cannot be made to depend upon the carriers' method of conducting transportation; it is the transportation itself which determines the relations of the carriers to the law. Every common carrier engaged in the transportation of traffic which is not wholly within a single state, or is not wholly by water, from the point of shipment to the point of destination, is subject to the statute. The degree of responsibility borne by carriers for rates, facilities or practices, under provisions applicable to specific transactions, may be and is varied by the facts in particular cases; but the broad question whether the act applies to a given railroad is one which is easily and necessarily determined by the single fact of participation or non-participation in the movement of interstate traffic. Whether a railroad company is required to make and file annual reports depends solely upon the use of its road in interstate commerce. The road may be one mile or a thousand miles in length. Mere distance does not limit or extend the application of the law.

Carrying grain by boats to an interstate point, turning it into elevators, and then forwarding it over a state railroad, may result in the movement of interstate commerce by independent shipments over two lines which separately are not subject to the law. This is only one instance of the carriage of large amounts of interstate traffic which should be made clearly subject to the act. The diversion of a large and yearly increasing volume of traffic to the hands of express companies, which are not subject to the statute, is another instance of the carriage of interstate commerce to which present regulation cannot be directly applied.

RIVER NAVIGATION—FERRY BOATS.

The Supreme Court, in an opinion written by Mr. Justice Brown, has rendered a decision of importance to river navigators, since it establishes the right of way of ferry boats in entering or leaving their slips. The decision was based on an appeal from a Circuit Court decision taken by the awarding of the Erie railroad damages for injury done its ferry boat Pavonia by the steamship Breakwater, belonging to the Old Dominion Steamship Co. The chief points of the lower decision were:

1. The Breakwater was in fault because, having the Pavonia on her own starboard side and being on a crossing course, she did not keep out of the way of the Pavonia, and in not taking into consideration the probable and usual course of the Pavonia, under the circumstances of the tide and the wind, and in not reversing her engine at the time she gave her first whistle.

2. The Pavonia was without fault.

3. In the suit brought by the New York, Lake Erie & Western Railroad Co., it is entitled to a decree for $4.-770.02, with interest from February 1, 1888, and for $2,800, with interest from June 18,1880, and for its costs in the District Court, taxed at $159.75, and for its costs in this court, to be taxed.

Mr. Justice Brown of the Supreme Court, in his opinion affirming the lower court, says:

The principal contention of the appellant is that the Pavonia was in fault for leaving her slip at the time she did in view of the strong ebb tide, northerly wind and the proximity of the Breakwater.

This was an incident which the pilot of the Breakwater must or ought to have anticipated, and being warned by the Pavonia's whistle that she was about leaving her slip, ought also to have provided against.

In view of the large number of ferryboats plying between New York and the opposite shores, sometimes as often as once in three or four minutes, from the same slip, their departure at any moment is a contingency which ought to be reckoned upon and guarded against. There is a necessity that these transits be made with great frequency and regularity, not only in order that the public may be accommodated, but that ferry boats arriving from the opposite shores shall not be compelled to lie in the stream with a chance of encountering other vessels

Steamers plying up and down the river should, therefore, keep a sufficient distance from the dock and hold themselves under such control as to enable them to avoid ferry boots leaving their slips upon their usual schedules of time.

Counsel for the Breakwater claims that Rule 19, requiring, in the case of crossing steamers, that the one having the other upon her starboard side shall keep out of the way of the other, has no application. We think, however, the rule became obligatory from the moment the Pavonia got under way, when it became her duty to keep her course and speed, and that of the Breakwater to avoid her. (The Britania, 153 U. S. 130). It was said by this court in the case of the Pacific (New York, etc. Steamship Co. v. Rumball, 21 How., 372, 384) and the Wenona (19 Wall., 41, 52) that "rules of navigation, such as have been mentioned, are obligatory upon vessels approaching each other from the time the necessity of precaution begins and continue to be applicable as the vessels advance, so long as the means and opportunity to avoid the danger remain." Where rules of this description are adopted for the guidance of seamen who are unlearned in the law and unaccustomed to nice distinctions, exceptions should be admitted with great caution, and only when imperatively required by the special circumstances mentioned in Rule 24, which may exist in any particular case, rendering a departure from them necessary in order to avoid immediate danger. The moment the observance or non-observance of a rule becomes a matter of doubt or discretion, there is manifest danger, for the judgment of one pilot may lead him to observe the rule, while that of the other may lead him to disregard it. The theory of the claimant that a vessel at rest has no right to start from her wharf in sight of an approaching vessel, and thereby impose upon the latter the obligation to avoid her, is manifestly untenable, and would impose a wholly unnecessary burden upon the navigation of a great port like that of New York. In the particular case, too, the signals exchanged between the steamers indicated clearly that the Breakwater accepted the situation and the obligation imposed upon her by the starboard hand rule, and was bound to take prompt measures to discharge herself of such obligation.

THE MARINE RECORD

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CLEVELAND, O., DECEMBER 13, 1894.

IF the Erie canal was to be adequately improved, it would knock out many of the visionary projects now being entertained by enthusiasts desiring to connect with the coast.

ASHTABULA ore receipts leads the world with a season's tonnage of 2,024,722 gross tons. The highest monthly record was 385,697 tons in June and the season lasted less than eight months.

THE capital invested in lake dry docks is now returning a fair dividend, or at least it ought to, for at all ports orders are booked well ahead for vessels and every resource is being used to accommodate the tonnage ordered into dock.

SOME ONE is advocating the enactment of a law making it compulsory for all sailing vessels and consorts on the lakes to carry a bundle of rockets for distress signals. There is not the slightest need for any such a departure as they would increase the danger where carried and in nine cases out of ten they would probably be too damp to burn if required.

TONNAGE has rather centered at Chicago this year expecting to obtain grain for winter storage and spring delivery. Nearly two hundred vessels, sail and steam, with a capacity of thirteen million bushels of grain are now wintering at Chicago. This is a larger tonnage than last winter by about two million bushels, and although the number of boats is not quite so large their capacity is greater than last year's fleet.

THE importance of the Nicaragua canal cannot well be overestimated in its effect on the commerce of the world. The way the canal affairs have dragged along however, is a sad reflection on American enterprise. This bill was introduced in the senate, and favorably reported on last April, and another which had many good qualities was adopted by the house committee on commerce. If some conclusion is not aimed at an international congress is talked of to present the project to the various commercial powers with a view to joint action being taken.

ADOLPH FREITSCHE, to demonstrate his aptitude, skill and ability to handle any man's vessel, built a small flat-bottomed craft at Milwaukee, Wis., conducted her through the lakes and the Erie Canal to New York, equipped, provisioned and safely carried the little craft across the Atlantic, and is again at an inland port after threading the canal leading to Manchester England. With a fund of money, or at least some capital to draw upon, the skillful seaman would not have demonstrated his commercial as well as technical ability, but when it is remembered that he arrived in Cleveland a few months ago without pennies enough to make a jingle on a tombstone, and cleared from that port with but little more than enough to provision his craft, it must be candidly admitted that Frietsche is capable of making ends meet at every stage of the sailing business, and should be well worthy of a command in sail or steam on his return to the lakes.

LAKE SHIPBUILDING.

In our issue of the 6th iust. we noted the probable placing of about two million dollars worth of new lake tonnage, all of which was being closely figured on by the several builders at each port. This week there is still more inquiries, and an important contract closed, which, through hanging fire for several months, had been allowed to partly drop out of sight. In this connection we allude to the two large ferry boats which President Dick, of the Pittsburg, Shenango & Lake Erie Railroad Co., has placed with the Craig Shipbuilding Co., of Toledo.

These boats will be very similar to those in use on the Ann Arbor Line carrying railroad cars across Lake Michigan. The new boats will each have a capacity to carry twenty-four loaded cars, and will cost about $400,000. They are to be completed by June 1, 1895, and are to be ice crushers so as to run during the winter. The chief traffic of these boats will be transferring coal from the American side to the Canadian shore, on Lake Erie, and bringing back lumber, ore, and copper. The purpose of the plan is to cut off the long haul of cars from Conneaut, O., round by Buffalo and thence through Canada via the Suspension Bridge. This will make a saving of over 250 miles each trip.

Following the trend of our reference to new inquiries, we find that the Standard Oil Co. of New York has sent out specifications for special tonnage to be delivered at lake ports, and the most prominent shipyards are figuring closely on this tonnage, which is to consist of two steel tankers having a capacity of eight thousand barrels of oil. Tankers are in use in other parts of the world, in fact cross the Atlantic at all seasons carrying oil in bulk in specially arranged tanks or compartments, but nothing of this sort has ever been attempted on the lakes and the departure is therefore noteworthy; furthermore, the Standard Oil Co., in seeking to build these vessels, which, from their dimensions, we judge are for the coast trade, seem to have no fear that the obnoxious free ship bill will go through the present Congress.

This new contract calls for two high-classed steel steamers fitted to carry oil in bulk and to be of the following dimensions: 170 feet keel, 33 feet beam and 17 feet deep. It will be seen that the above dimensions are suitable for the St. Lawrentce canal system, as a vessel of 185 feet in length and 40 feet beam can lock through on that route to the coast, in evidence of this Mr. Hanna's steel steam yacht Comanche built by the Globe Iron Works Co., of Cleveland, is 185 feet in length, and she has passed from fresh to salt water and *vice versa* several times.

From the statement contained in our previous issue, coupled with the last contract awarded and the new tonnage being figured on, the lake shipbuilders stand to be awarded contracts this winter amounting in the aggregate to about three million dollars and there is yet more to hear from as the season closes and owners have the leisure to enter into specifications to replace lost tonnage or add to present fleets. This is not including orders placed in Canada or any contracts closed months ago, but is strictly being figured on and still, as the saying goes, "in the air."

Remarks are heard about the new contracts for two steel steamers 425 feet in length over all and only 28 feet molded depth. Such boats rated by the best known and highest classification societies would require more metal and somewhat different construction than is usual in lake tonnage, however, when built, the owners, their advisers and the classification society will no doubt, be in a position to keep them the biggest and best boats on the lakes. There is in view, however, a steamer of 425 feet in length, having otherwise much different dimensions and in certain events the keel of such a steamer will be laid within sixty days.

ST. MARY'S FALLS CANAL TRAFFIC.

The report of the season's traffic of St. Mary's Falls Canal shows that notwithstanding the general impression that transportation had fallen off, this year is a record breaker.

The traffic throughout the canal this season is nearly 2,000,000 tons greater than in 1892, which was the best in the history of the canal and consequently Lake Superior commerce. The freight tonnage this year amounts to 13,195,860 tons, as against 10,796,572 tons last year, an increase of 2,399,288 tons, or 22 per cent. The registered tonnage is 13,110,366 tons, against 9,849,754 tons last year, an increase of 3,260,612 tons or 34 per cent. The freight tonnage this year is valued at $143,114,501. The basis of unit values for the valuation of freight for this year has been entirely amended to suit current prices. Owing to the large depreciation of values the changes are such that it makes the freight value appear less this year than last, notwithstanding that the freight is much in excess to that of last year.

The amount of the difference caused by this depreciation is the values of the freight this year is 2 per cent. of last year's valuation which was based on values adopted in 1885 and 1892. The falling off in coal shipments were early in the season on account of differences between vessel owners and coal dealers as to the freight rates. The canal was open 234 days this year, fifteen days longer than in 1893. It opened this season April 17 and closed December 6, at 9.30 o'clock a. m. The new steel steamer Globe chartered by the Northern Steamship Company, was the last boat to pass down for the season of 1894.

The foregoing record may not appeal to the senses of those unaccustomed to shipping or dealing with large quantities in bulk, although men engaged in the vessel business realize the small space which a cargo of one to three thousand tons of ore can be discharged into, as well as a similar volume of coal in bulk, yet in following up the what has now become a stereotyped manner of presenting statistics, it is figured out on a comparison with railroad traffic that the "Soo" canal traffic for the season if loaded on railroad cars would form a line reaching from New York to San Francisco and a second track filled with loaded cars reaching from New York to Chicago. These comparisons might go on indefinitely and the 13,195,860 tons put into vessels towing in line would no doubt cover a remarkable distance, yet the bare fact remains that the "Soo" canal makes the greatest showing of any artificial waterway in the world, besides being one of the most important commercial gateways known in maritime history.

THE U. S. CORPS OF ENGINEERS.

The importance and extent of the work carried on by the corps of engineers, U S. army, in the conservancy and improvement of rivers and harbors is not as generally known and appreciated by commercial and transportation interests as it might and in fact, should be.

The members comprising the U. S. corps of engineers are gentlemen of the highest professional training and acquirements, men who in the conduct of their official duties are urbane, conscientious and strictly beyond the pale of derogatory influences in awarding contracts for important as well as even trivial federal improvements, and, while maintainimg a disciplinary demeanor in all transactions wherein they are called to act as agents for the government, their code of qualifications are such as to facilitate in every legitimate manner the proper conduct of the immense interests placed in their hands and in a great measure at their sole discretion by the government.

It is a source of gratification to citizens at large and to maritime and transportation circles in particular, that the country has so eminent and distinguished a corps to execute what is to them, frequently, the most important recommendations authorized by congress, and while the corps of engineers are by no means the arbiters of commerce, their well advised action in many, if not all cases enhances the value of our navigable waterways, makes flourishing and prosperous ports out of one time hamlets and by advancing the interests of transportation renders better service to the country than any other shore department under the federal regime.

IT is somewhat late in the day to inquire into the volume of water which the Chicago drainage canal will take away from Lake Michigan levels, but it is not too late for an official investigation to be made so that men who are investing millions of dollars in vessel property and the vast interests involved in western and northwestern transportation may know exactly where they stand in this matter of opening a second Niagara outflow.

NOTICE TO MARINERS.

Notice is hereby given that all the iron buoys have been removed for the winter. Spar buoys painted to correspond with the iron buoys removed have been left in their places.

The Simmons Reef, White Shoal, Gray's Reef and Eleven Foot Shoal light ships Nos. 55, 56, 57 and 60 have left their stations and gone to their winter quarters.

COMMANDER J. H. DAYTON, U. S. N.
Inspector Ninth Light-House District.
Chicago, Ill., December 12, 1894.

SEASON TRAFFIC THROUGH ST. MARY'S FALLS CANAL.

During the past season the traffic that passed through the St. Mary's Falls canal reached 13,195,860 tons, nearly two million tons more than in the former greatest transportation year of 1892, and almost two and a half million more than in 1893. Owing to a change made in the unit of valuation, the traffic this year is not so great as that of last year, notwithstanding that the freight this year greatly exceeds that of last season. The canal was open 234 days, 15 days longer than in 1893. It opened this year on April 17 and closed December 6, at 9:30 in the forenoon, the Globe being the last boat to pass down for the season of 1894. She locked through at 9:30 a. m. last Thursday.

The amount and value of the traffic of 1894 and 1893, together with the increase and decrease of the different classes of freight, are shown in the accompanying tabulated statements, as published by the Sault Ste. Marie *News*, by permission of the government.

COMPARATIVE STATEMENT OF COMMERCE THROUGH ST. MARY'S FALLS CANAL, MICHIGAN, FOR THE SEASONS OF 1893 AND 1894.

ITEMS.	DESIGNATION.	SEASON.		INCREASE.		DECREASE.	
		1893.	1894.	Amount.	Per Cent.	Amount.	Per Cent.
Vessels (a)	Number	12,008	14,491	2,483	21	.....	.....
Lockages	Number	5,553	6,431	878	16	.....	.....
Tonnage, registered	Net tons	9,849,754	13,110,366	3,260,612	34	.....	.....
Tonnage, freight	Net tons	10,796,572	13,195,860	2,399,288	22	.....	.....
Passengers	Number	18,869	27,236	8,367	45	.....	.....
Coal, hard	Net tons	3,008,120	532,870	.....	....	210,936	07
Coal, soft	Net lons	.....	2,264,314	.....	....	.....	.....
Flour	Barrels	7,420,694	8,965,773	1,545,099	20	.....	.....
Wheat	Bushels	43,481,652	34,869,483	.....	....	8,612,169	20
Grain (other than wheat)	Bushels	2,405,344	1,545,008	.....	...	860,336	36
Manufactured pig iron	Net tons	89,452	60,659	.....	....	37,793	38
Salt	Barrels	228,730	237,461	8,731	04	.....	.....
Copper	Net tons	87,530	99,573	12,043	14	.....	.....
Iron ore	Net tons	4,014,556	6,548,876	2,534,320	63	.....	.....
Lumber	M. F. and B.M.	588,545	722,788	134,243	23	.....	.....
Silver ore	Net tons	2,470	412	.....	....	2,058	83
Building stone	Net tons	19,426	21,417	1,991	10	.....	.....
Unclassified freight (b)	Net tons	415,180	451,185	36,005	09	.....	.....

NOTE (A)

Steamers	10,208
Sails	3,676
Unregistered	607
Total	14,491

NOTE (B).

Included in the item of unclassified freight are 1,468 tons of wool and 382 tons of hides.

Canal was open to navigation during the season of 1893, 219 days; 1894, 234 days.

Table showing the estimated value of freight through St. Mary's Falls canal, Michigan, during the season of 1894:

ITEMS.	Designation.	Quantity.	Price Per Unit,	Valuation.
Coal, hard	Net tons	532,870	$ 4 75	$ 2,531,132 50
Coal, soft	Net tons	2,264,314	2 50	5,660,785.00
Flour	Barrels	8,965,773	3 75	33 621,648 75
Wheat	Bushels	34 869,483	64	22 316,469.12
Grain, (other than wheat)	Bushels	1 545 008	50	772 504.00
Manufactured iron	Net tons	36,107	50 00	1,805,350.00
Pig iron	Net tons	24 552	13 50	331,452 00
Salt	Barrels	237,461	1 00	237,461 00
Copper	Net tons	99 573	200 00	19,914,600 00
Iron ore	Net tons	6,548,876	2 60	17.027,077 60
Lumber	M. F and B. M.	722,788	16 00	11,564,608.00
Silver ore and bullion	Net tons	412	112 00	46 144.00
Building stone	Net tons	21 417	10 00	214,170.00
Unclassified freight	Net tons	451,185	60 00	27,071,100 00
				$143,114,501 97

RIVERS AND HARBORS.

The annual report of Major James F. Gregory, Corps of Engineers, U. S. Army, in charge of the improvements of rivers and harbors on the western shore of Lake Michigan, shows to some extent the importance and the volume of work carried out by the district officers. For the fiscal year ended June 30, 1894, Major Gregory carried out improvements and rendered a valuable report on the general commerce at the following west shore ports, harbors and rivers: Manistique, Cedar River, Menominee, Menominee River, Oconto, Pensaukee, Green Bay Harbor, Sturgeon Bay and Lake Michigan Ship Canal, operating and care of Sturgeon Bay and Lake Michigan Ship Canal, harbor of refuge at entrance of Sturgeon Bay and Lake Michigan Ship Canal, Ahnapee, Kewaunee, Two Rivers, Manitowoc, Sheboygan, Port Washington, harbor of refuge at Milwaukee, Milwaukee harbor, Racine, Kenosha, Waukegan, Fox River, operating and care of locks and dams on Fox River, Wis., removing sunken vessels or craft obstructing or endangering navigation, besides surveying and determining harbor lines at the port of Oconto, Wis.

COMPASS ERRORS.

The attention of mariners has recently been called to the possibility of errors in the compass and by those who have made a careful study of the subject it is said that these errors are more liable to occur in iron and steel vessels than has been generally supposed. That frequent and careful observations are necessary to determine compass errors is shown by the following remarkable changes in the deviation of the compass:

Captain R. Redman of the British steamship Nerano, reports that a meteor passed close to his ship in latitude 49° 42′ N., longitude 13° 30′ W., on a recent voyage from Baltimore to Havre. A bearing of the North Star taken soon after this occurrence showed that the deviation of the compass on the course being steered had changed from 5° 30′ west to 5° 30′ east. Subsequent observations indicated a gradual change in the deviation to its old position 5° 30′ west, 24 hours after the passage of the meteorite.

On September 22, 1892, the Morgan Line steamship El Sol, Captain H. S. Quirk, an iron vessel with iron masts, while near the Dry Tortugas en route from New Orleans to New York, had her foremast struck by lightning. The effect of the stroke upon the pilot house compass, ten feet abaft the foremast was to practically reverse its magnetism, the north point becoming the south point and vice versa, while the bridge compass ten feet further aft, showing a change of from four to eight points. Being at still greater distances from the foremast the other compasses were not so seriously affected, though all exhibited great changes. The ship's compasses were all readjusted on reaching New York, but the deviations changed considerably on the return voyage, showing that the effect of the lightning stroke was not permanent in its character.

PORT IMPROVEMENTS.

Lake ports generally are becoming more interested in the condition of their harbors and are more than ever impressed with the advantages that might be derived from facilitating shipping and establishing industries closely connected therewith.

Sturgeon Bay now wants a dry dock and in support of this new industry says that they have perhaps the most favorable situated port for ship building and repairing, which includes dry dock, machine shops, etc., of any city on Lake Michigan. With a free canal the Ann Arbor ferry steamers plying regularly through there, railroad connection to all points, and being located nearer the wreck center than other cities, there should be no trouble in inducing capitalists in such undertaking if proper and united effort is made. As the Sturgeon Bay papers state, "It might perhaps be well to state at this time that if we are to get any industry to locate here it will be necessary for our citizens to pull together, and perhaps take stock in such industries, as an evidence of good faith. Other cities are doing this, and instead of waiting until they have secured everything in sight, we should be up and doing."

From the other end of the lakes Ogdensburg is holding forth for better channels and state that their harbor must be improved, urging that the big marine interests of the city demand it because the present condition is a hinderance and expense in many different ways. Ogdensburg harbor is entitled to much consideration, if the big fleet of vessels now entering here is any criterion to go bp our harbor needs to be deepened. Large steamers can approach our docks only by certain cuts, and sometimes these are not practicable. If the steamers do not strike those narrow channels at just the right angle, or should the water be only a trifle low, the boats run aground and are put to the expense of tugs or lighter to get afloat. The other day the schooner Saveland now in this port, came to anchor near the lighthouse, drawing less than 14 feet of water. the captain wanted to reach Rodee & Bills elevator, but could not get across the bar, and he was obliged to get to the Central Vermont elevator and lighten part of his cargo. This was an unlooked for expense. Many times during the season the big steamers of the Ogdensburg Transit Company have gone aground in the lower harbor, costing the company more or less money for really needless accidents. General N. M. Curtis, our member of congress, has done much for Ogdensburg harbor improvements and St. Lawrence River channel improvements—more, perhaps, than any one congresman could be expected to do. He has made great progress for the improvement of St. Lawrence water ways, but there still remains much to be done to meet the demands of the fast increasing tonnage. We need range lights to help guide steamers through the narrow channels of the Thousand Islands, and we need targets or ranges for day marks. There are many dangerous rocks in the channels unmarked, although the attention of the lighthouse board has often been called to them. Two steamers last week report grazing rocks near Cross-over Lights, while in the centre of the channel. This should not be, and every business man of Ogdensburg knowing how important to the city are its marine interests, should bring its interest to bear towards correcting this state of affairs.

An idea of how important these interests are may be gained from the following list of vessels wintering here. Steamers—W. J. Averell, A. McVittie, W. A. Haskell, J. R. Langdon, W. L. Frost, John Rugee, J. C. Ford, Denver, Lewiston, A. L. Hopkins, Josephine, Saginaw Valley, Rhoda Emily, Argonaut, Colonial, Hiawatha, Brittanic, Island Bell, Hecla, Stranger, Lotus, Milton, Shoecraft, Armstrong, Plumb, Spencer Mead, Southeastern, Transit, Belleville.

Tugs—W. L. Procter, Wilson, Curlew, Seymour, Myra, Rescue, Pandora, and three dredges.

Barges—Sherman, Bolivia, Beals, Matthews, Lyon, Diamond, Ball, Argosy, Onondaga, Mohawk, Ajax, Menominee, Whitbeck, Stephenson, Carney, Argo, Kent, Mary, Hoboken, Scotland, Ireland, England, Aid, H. B.

Schooners—Saveland, Mott, West Side, Ishpeming, Leighton, Mongaugen, Hanscombe.

RAFT TOWING LEGISLATION.

Representative Lockwood, of New York, introduced in the House on Wednesday a bill to regulate raft towing on the Great Lakes. The bill permits bag or sack rafting in the open lakes, provided certain lights and screeching whistles are carried by towing vessels. Rafts in channels, harbors or revetted banks must be so constructed that the boom logs surrounding such rafts shall overlap each other at least three feet. In the connecting waters of the lakes rafting is prohibited, and all raft towing is prohibited in St. Clair flats and Hay Lake Channel. On St. Mary's River rafts are limited to 60 feet wide and 600 feet long and must be handled by two tugs. Violations are made punishable by fines ranging from $100 to $1,000.

Capt. James Davidson states that he is building only two large wooden steamers at his Bay City yards, and but one schooner, notwithstanding reports to the contrary. He is, however, building two big lighters besides and each will carry 600 tons on deck.

THE NEW SAILING RULES.

Circulars handed to lake vessel masters and owners by collectors of customs, during the past few months, state that new sailing and steering rules will go into effect March 1, 1895, but whether they are to be enforced on the Great Lakes or not seems to be a question which the commissioner of navigation, supervising inspector general of steamboats, or the secretary of the treasury decline to answer at this time, although it is a matter of vital importance to lake commerce to be made aware of the changes if they are to enter into lake navigation.

These rules are international in their application and the maritime countries that had delegates attending the international marine conference have issued notices of the intended changes to take effect next March. The departure, however, does not meet with entire unanimity, among practical men as the following correspondence would show. Of course if the rules are not to go into effect on the lakes, those sailing exclusively on fresh water need not trouble about looking into the matter, but if they are, and the general impression now is that they will be made to apply on the lakes, then the questions brought up can not be too carefully scanned.

These new rules have been the subject of voluminous correspondence, extending over many months, between the Board of Trade and the Liverpool Steamship Owners' Association. The ship owners object to them on two grounds. (1) They introduce a complicated system of sound signals to be used in fog, and (2) they do not relieve the British ship owner from the anomalous position he is now in of having to infringe the international regulations by complying with the British regulations as to the screening of side lights. The sound signals, which are to be made by steam-whistle, are to indicate ten different positions or manœuvres, the signals being dependent on the number and length of the blasts. The shipowners are convinced that in the navigation of much-frequented channels, and in proceeding in and out of port, it will be impossible to depend upon the persons in charge of a vessel distinguishing between the long and short blasts, or distinguishing between the set of signals that are being sounded from one vessel and the set of signals that are being sounded from another vessel that is near the same spot. They are satisfied that they cannot in moments of emergency rely upon the crew remembering or using with accuracy the complicated system the regulations prescribe. They are, in short, satisfied that the adoption of the sound signals will cause the greatest confusion and lead to serious disaster, involving loss of life and property.

The board of trade in declining to reopen the question point out that the matter has been long and carefully considered, the proposed rules having been before the country for three years, and all objections to them having been weighed and discussed. From the Blue Book containing the correspondence it appears that a board of naval officers reported to the navy department at Washington that "the compulsory use of sound signals cannot fail in a crowded harbor, at times, to lead to helpless confusion." The government of the Netherlands refer to the proposed system in the following terms: "It none the less appears to present a real danger by reason of the multiplicity of signals adopted, of which the application might cause deplorable confusion in much-frequented channels." The German Government express the opinion that the proposed system makes "demands upon the memory which could not be responded to by the majority of seamen." The United Kingdom, America, Belgium, and Germany own 64 per cent. of the whole shipping of the world. The countries that approved of the introduction of the sound signals own 29 per cent.; at the present time there are only three recognized sound signals used in fog, but the board of trade have found it necessary to issue a caution with reference to these signals, in which they advise "That the mariner should not assume:—(1) That he is out of the ordinary hearing distance because he fails to hear the sound; (2) because he hears a fog-signal faintly he is at a great distance from it; (3) that he is near it because he hears the sound plainly; (4) that the distance from and the intensity of the sound on any one occasion is a guide to him for any future occasion; and (5) that the fog-signal has ceased sounding because he does not hear it, even when in close proximity." The shipowners have asked whether in the event of the introduction of the proposed complicated system, the board will still be of opinion that this caution is necessary or consider that a prudent master mariner may place some reliance upon the signals. The board have not replied to this question.

Another objection involving a point of international law is raised. Under the existing international regulations, a vessel's side lights must be so screened as to prevent them being seen across the bow. The British Government, although parties to the international regulations by an Order of Council, dated the 30th January, 1893, enacted that these lights should be fixed, and the screens fitted, so that the rays shall cross the line of the ship's keel projected ahead of the ship at a reasonable distance ahead of the ship. This Order in Council has not been followed by foreign powers, and has no binding international force. It is argued that the British shipowner is therefore forced to disobey the international regulations in obeying the British regulations and is liable to be held responsible in damages for so doing by the courts of any of the powers, parties to the international regulations. From the Blue Book it appears that the Netherlands Government look upon this question of the screening of side lights as a matter of great importance, and are strongly opposed to the principle introduced by the Order in Council on the 30th January, 1893. The board of trade state that they have been advised that the rule ordering the lights to cross ahead of the ship is merely explanatory of the regulation which enacts that the lights shall be so screened as to prevent them from being seen across the bow, and further that a British shipowner, by allowing the lights to be seen across the bow, will not involve himself in risk before a foreign tribunal. The shipowners have been advised by two leaders of the English bar that they are involved in such risk. They have therefore asked the board whether her Majesty's Government will be prepared to indemnify a shipowner in the event of judgment being given against him by a foreign tribunal in consequence of his having complied with the order of the 30th January, 1893. To this question the board have made no reply.

YACHT BUILDING.

The following steam yachts are now in course of construction at the works of Messrs. Charles L. Seabury & Co., at Nyack on Hudson, N. Y.:

Flush deck cruising steam yacht, 120 ft. over all, 97 ft. W. L., 16 ft. beam, 9 ft. depth, 6 ft. 6 in. draught. The keel, stem and stern post will be of best white oak. Frames, reverse frames, keelsons, breast hooks, deck beams, diagonal straps and fore and aft plates, bulkheads, etc., will all be of steel. Planking will be of yellow pine in two thicknesses. All fastenings in planking to be of composition through bolts. The yacht will be schooner rigged, flush deck. A 16-ft. deck house will be fitted forward, with bridge overhead for steering the vessel from. This house will be arranged as a dining room, with buffet, etc. The owners' and guests' accommodations will be forward, which will be very commodious and comfortable. The main saloon will also be forward. These quarters will be elegantly furnished and finished.

The machinery will consist of a "Seabury" triple expansion marine engine, and a "Seabury" patent safety water tube boiler of latest design. Everything in connection with her machinery will be of the best. The guaranteed speed of this yacht is 16 miles per hour for three consecutive hours over a measured course.

The yacht is being built for Mr. F. C. Fowler, of Moodus, Conn., and will be ready for delivery by June 1, 1895.

There is also on the stocks at Seabury's yards for a New York yachtsman, a craft 65 ft. over all, 52 feet. L. W. L., 11 ft. beam, 4 ft. draught. This yacht is of the trunk cabin schooner rigged type. The crew's quarters are forward under deck, with port lights for ventilation. The machinery is a "Seabury" triple expansion engine, and a "Seabury" safety water tube boiler of latest type. Speed is 12 miles per hour. This yacht will be ready for delivery May 1, 1895.

The next yacht in course of construction at Seabury's works is for Dr. W. A. Haskell, of Alton, Ill. She is 60 ft. over all, 54 ft. W. L., 9 ft. beam, 3 ft, draught

This boat will be built in the best possible manner, with mahogany pilot house, owner's saloon, toilet room, galley, crew's toilet room, after saloon, etc., complete. Machinery consists of a "Seabury" triple expansion engine and a "Seabury" patent safety water tube boiler of latest type. Speed is 14 miles per hour. Everything about this boat will be modern and up to date. She will be lighted by electricity, and have a small search light on pilot house. Ready for delivery March 1, 1895.

ATLANTIC DERELICTS.

The report of the joint departmental committee of the English Board of Trade and Admiralty upon the derelict question has been published, and their views on this question are as follows:

1. The number of well established casualties from collisions with derelicts in the open sea is very small, and the danger resulting from them has been much exaggerated.

2. Taking the average estimated in the pamphlet published in the United States, an average which is probably high, the number of derelicts at one time afloat in the whole of the North Atlantic is not more than nineteen, and the area of the North Atlantic is some ten million square miles, but the number of derelicts floating in the Atlantic trade routes frequented by British ships is very much less than nineteen.

3. The chance of discovering even a few of such a small number of derelict vessels in so vast an area are infinitesimal. The destruction of certain classes of derelicts when found is a work of great difficulty, and the dispersion of their cargoes in some cases creates an additional danger.

4. Any systematic attempt to destroy floating derelicts on any one route, would necessitate the constant employment by the government of a considerable number of ships specially equipped for this purpose. It would be impossible to confine such operations to the North Atlantic. Every trade route would have to be dealt with. The efforts of the searching vessels could never be relaxed, and the cost of such an undertaking would be out of all proportion to any benefit which could conceivably result from it. We are, therefore, unable to recommend that any such attempt should be made.

5. For the same reasons we fail to see that any adequate advantage would be likely to accrue from an international conference on the subject.

6. We are of opinion that more advantage should be taken than is at present the case of existing statutory requirements, in order to ensure that all derelicts seen, and also ice passed, are at once reported at the various custom houses by the masters of inward-bound vessels, and that the masters of outward-bound vessels should report in the same manner to the consular officers or other proper authorities in foreign and colonial ports; and the reports thus received should be sent direct to the Board of Trade with a view to examination; and that such information as the board might think desirable to immediately make known in the interests of navigation should be published in supplementary notices to mariners with the least possible delay.

7. The publication, in addition, of any such information on derelicts as is given in the chart issued in the United States would be of no practical use, but would be likely to be misleading and to create unnecessary alarm.

NOTES.

IN the year 1860, the Clyde shipbuilding industry had assumed what was regarded as very fair dimensions. Nearly 50,000 tons of shipping were launched in that year, in the next four years the trade took a wonderful jump, and in 1864 over 178,000 tons were constructed. In 1872, the tonnage exceeded 200,000 tons, and in 1881 it rose to over 300,000 tons, in 1883 it had grown to the remarkable proportions of 415,600 tons. This latter output was the yield of 45 different shipbuilding yards, many of which, however, were of very trifling size. Six of the leading firms produced between them 158,000 tons, while six of the smallest produced between them less than 1,000 tons.

THE illustrated Buffalo *Express* announces three holiday numbers for December 16th, 23d, and 30th, respectively. The public has learned that the illustrated *Express* never does a thing by halves, and it is unnecessary to assure our readers that what the *Express* undertakes in this line is sure to be the finest of its kind. Each issue will be of extra size, printed in colors. The issue of the 23d will be the Christmas number, with a special first-page prize design, the result of a competition in which twenty-five leading Buffalo artists were invited to enter; and the winning pictures in the amateur photographers' contest. December 30th will be the New Year's number.

POST PRANDIAL STUDIES.

FAIR HOSTESS (passing decanter): "I hope you admire this decanter, Admiral?"

GALLANT ADMIRAL: "Ah, its not the vessel I'm admiring."

FAIR HOSTESS: "I suppose its the port."

GALLANT ADMIRAL: "Oh, no; it's the pilot!"

WILLIAM L. BROWN, President.
WALTER F. COBB, Vice President and Treasurer.
W. I. BABCOCK, Manager.
O. R. SINCLAIR, Secretary and Asst. Treas.

Chicago Ship Building Company,

STEEL STEAM-SHIP BUILDERS.

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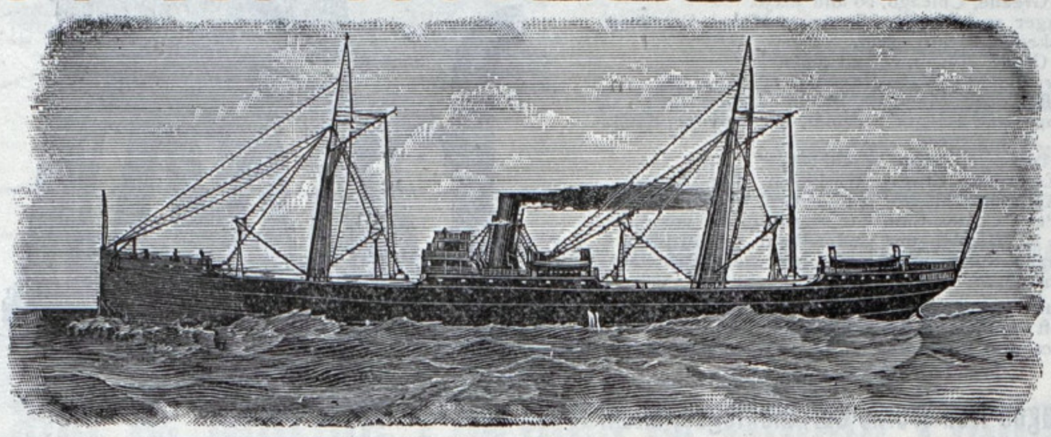

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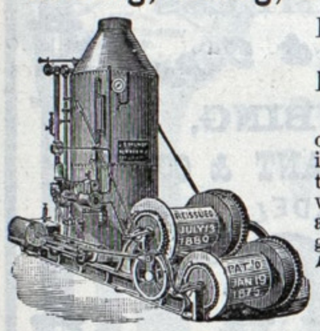

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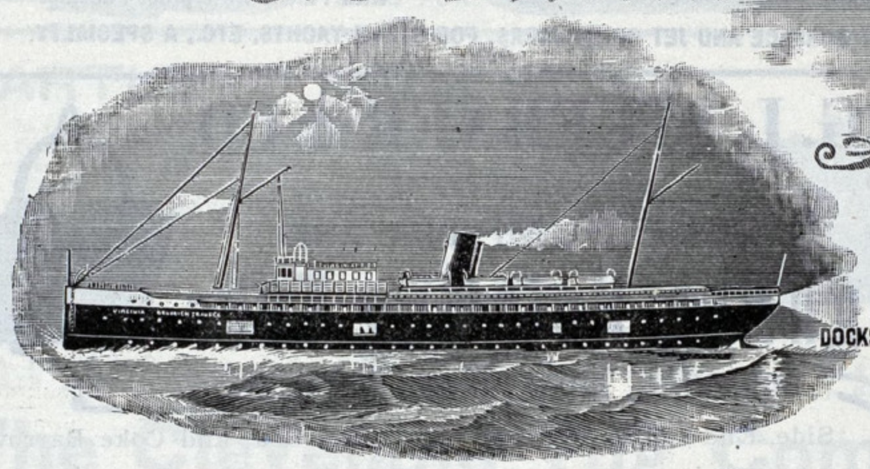

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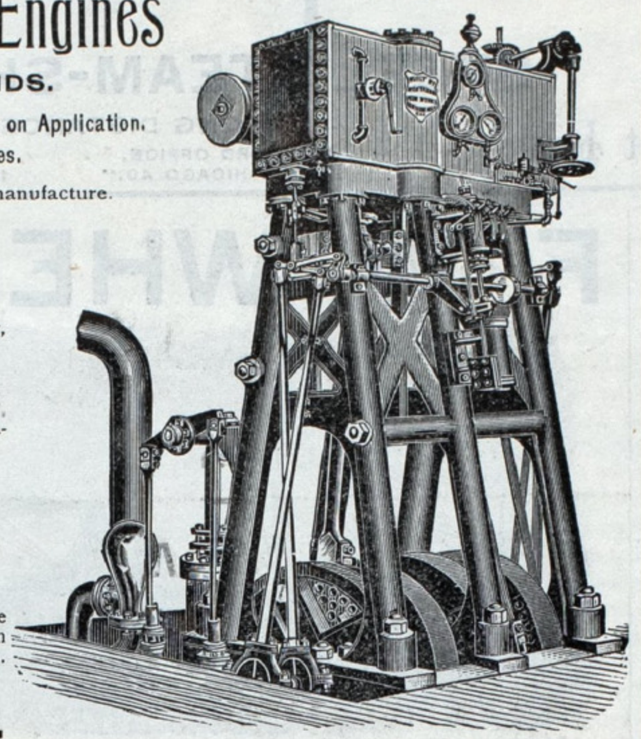

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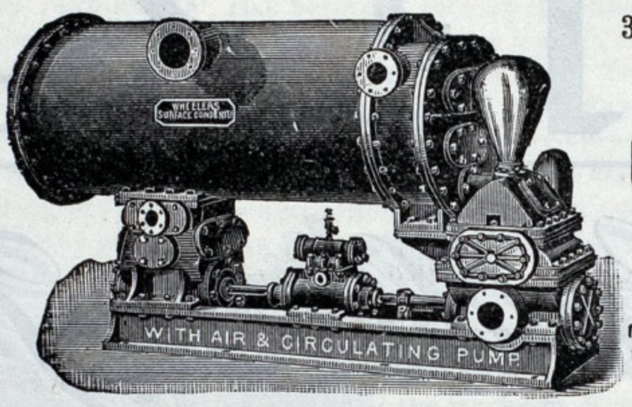

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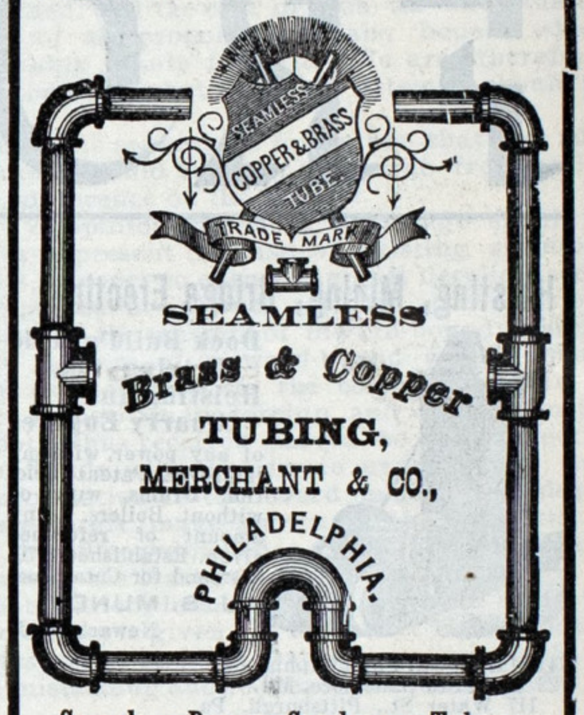

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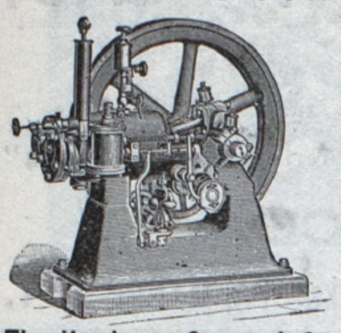

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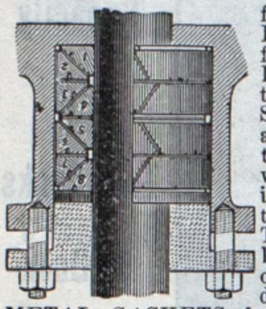

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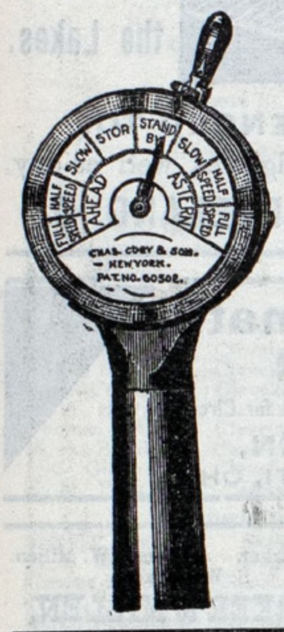

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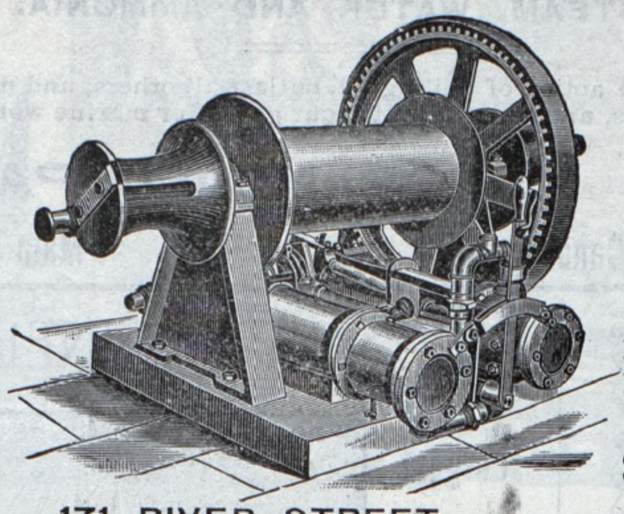

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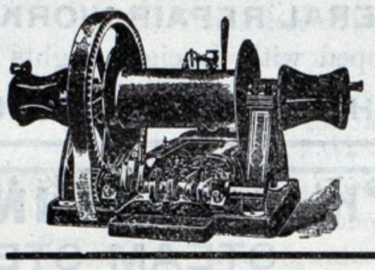

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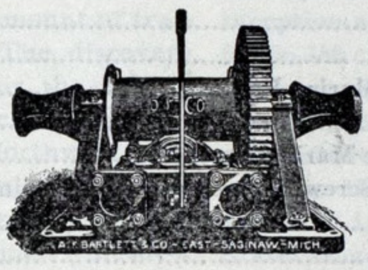

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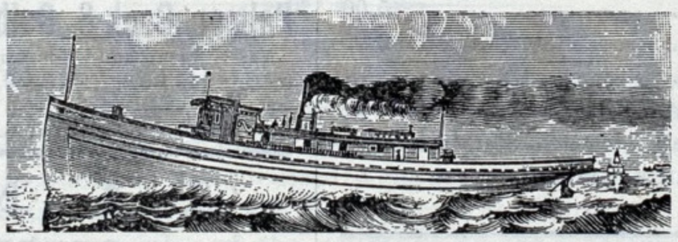

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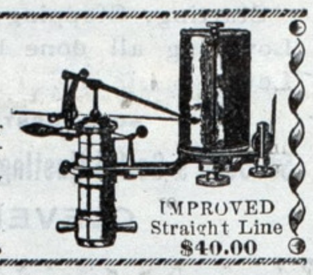

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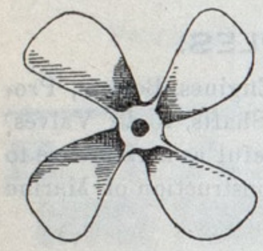

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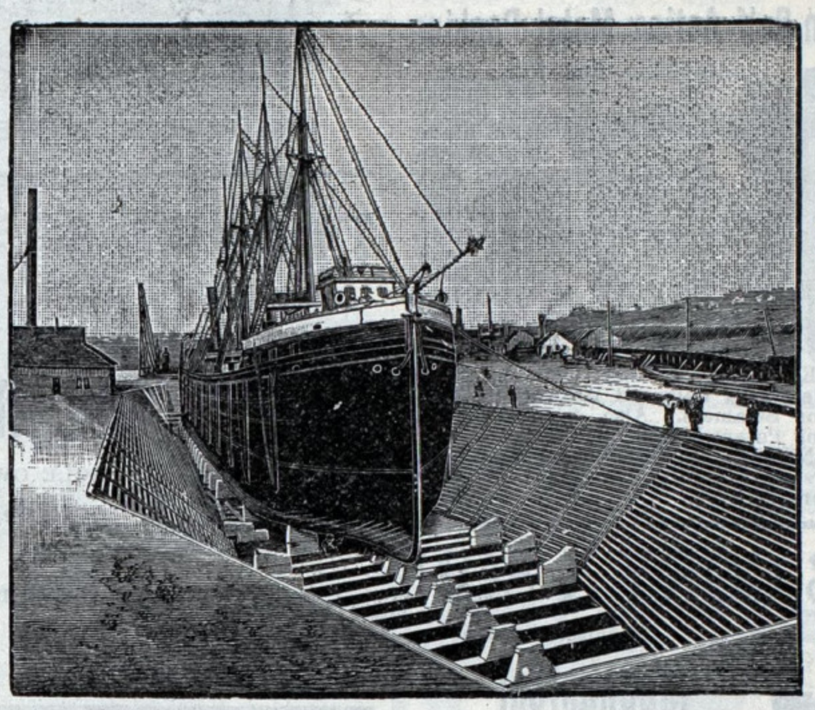

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